

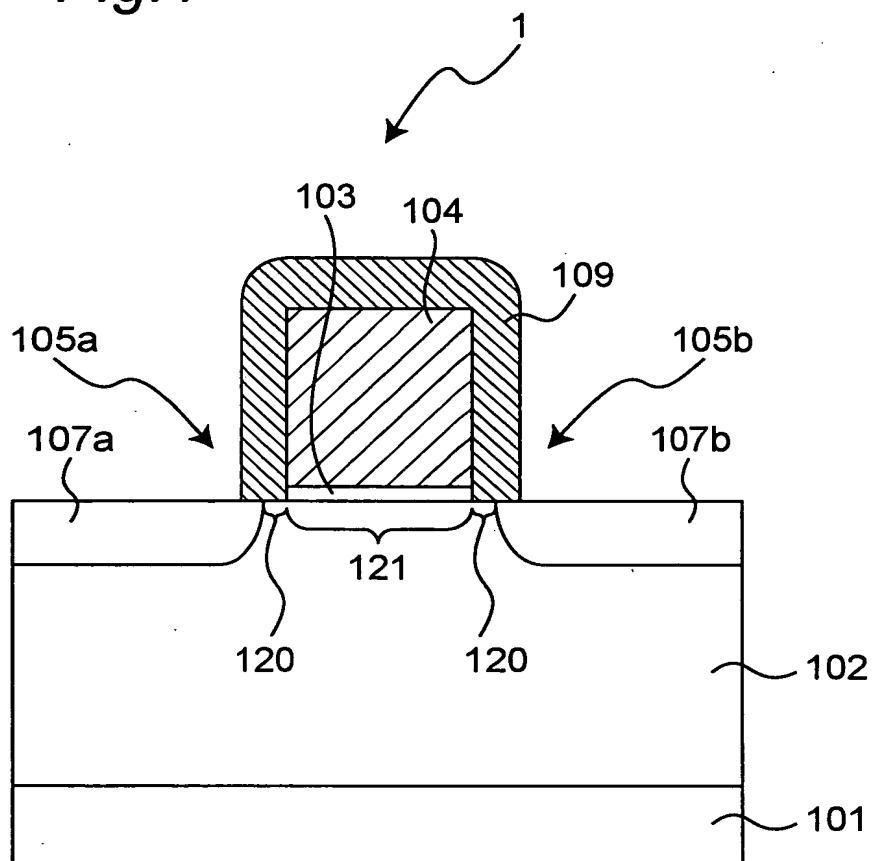
Fig. 1

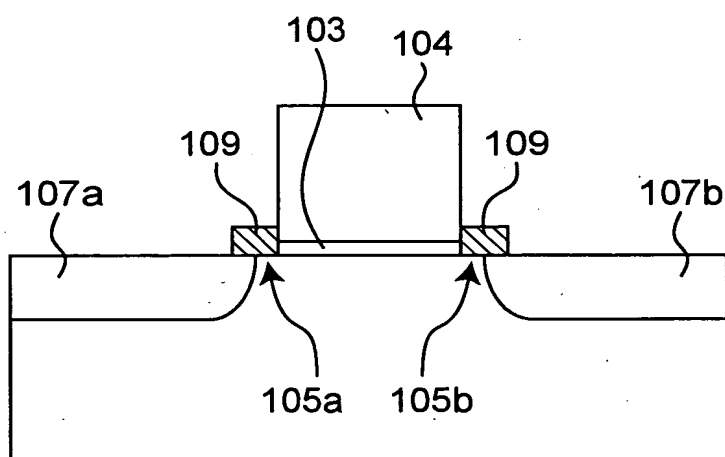
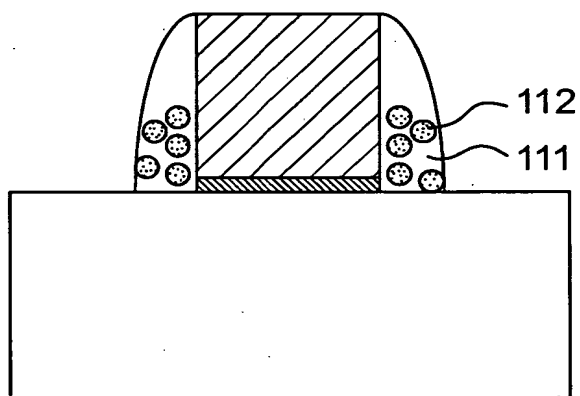
Fig. 2A*Fig. 2B*

Fig. 3

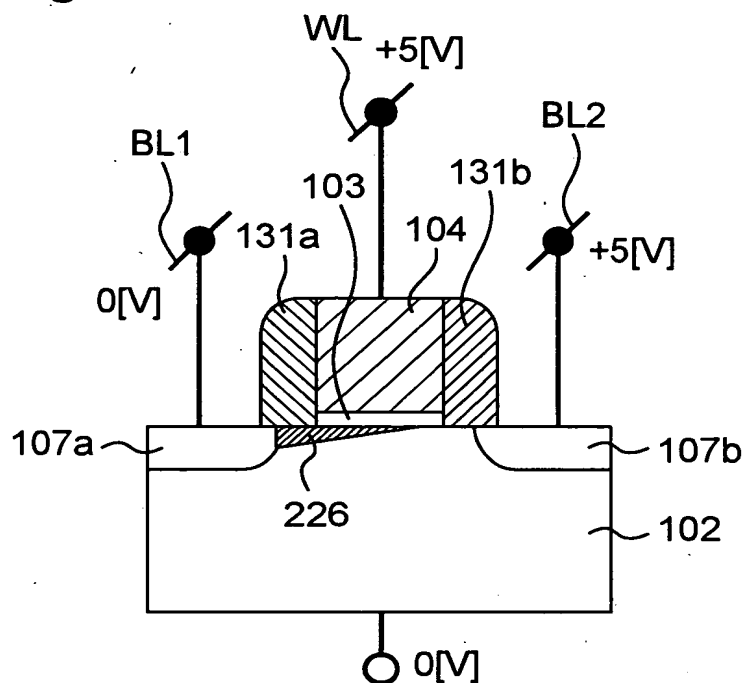


Fig. 4

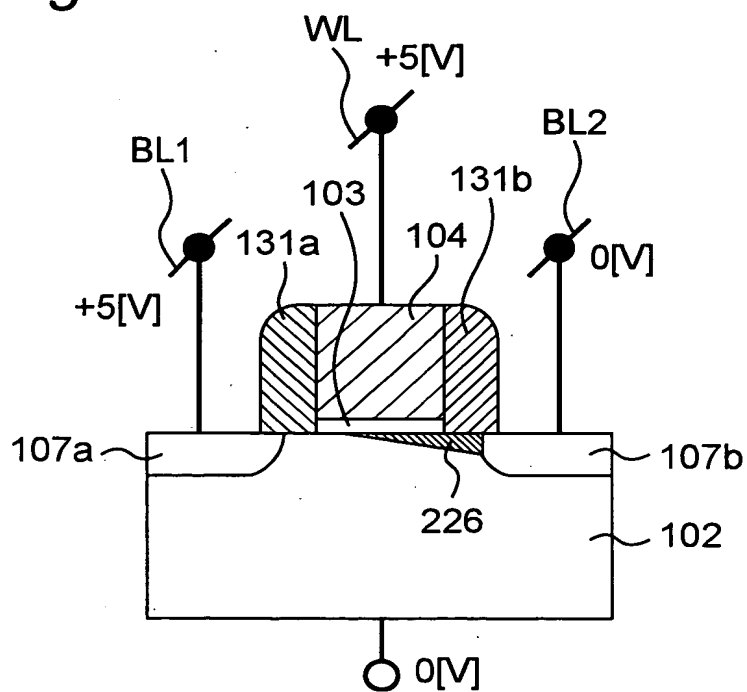


Fig.5

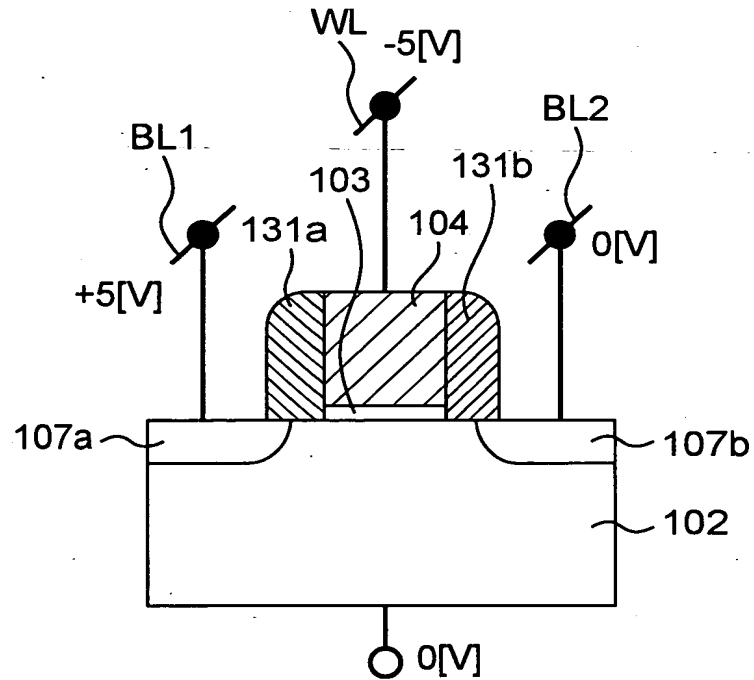


Fig. 6

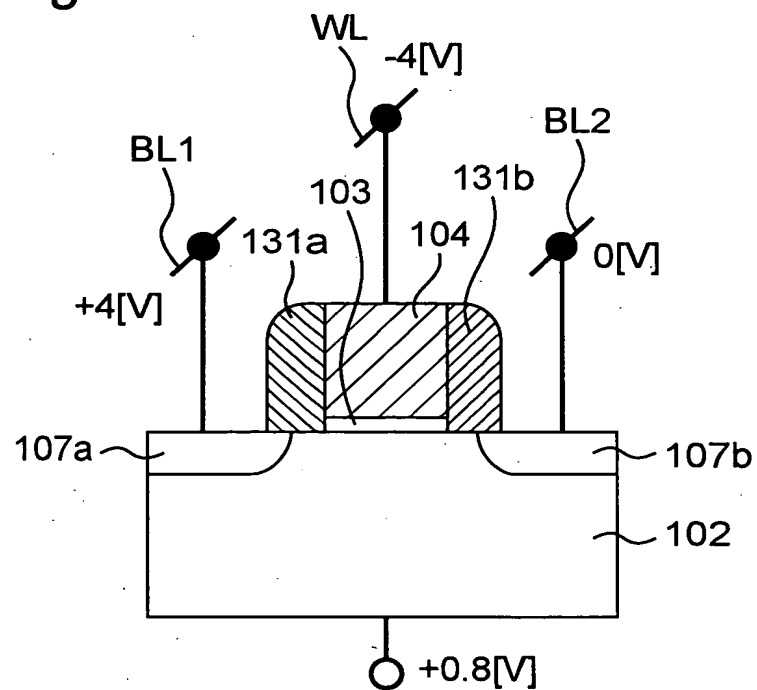


Fig. 7

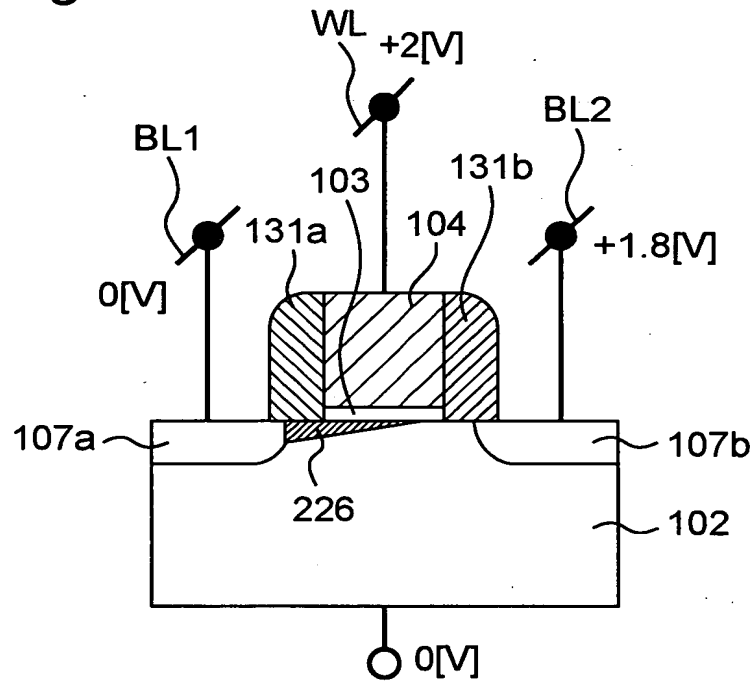


Fig. 8

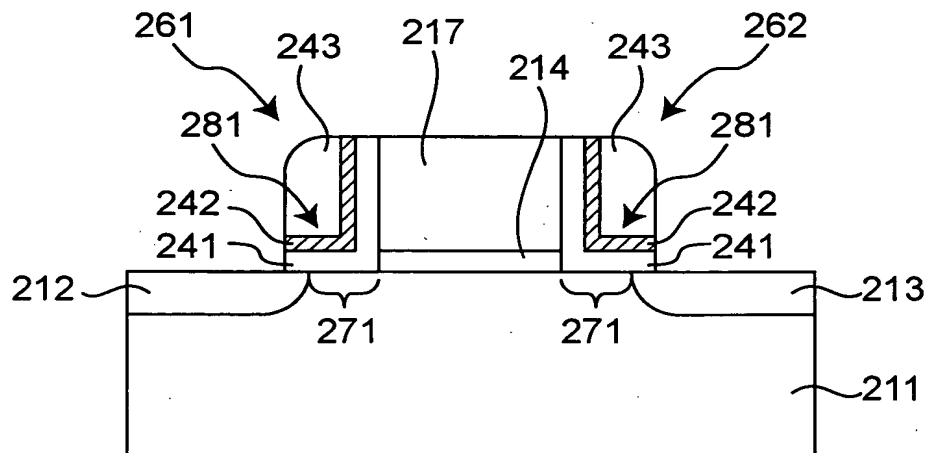


Fig. 9

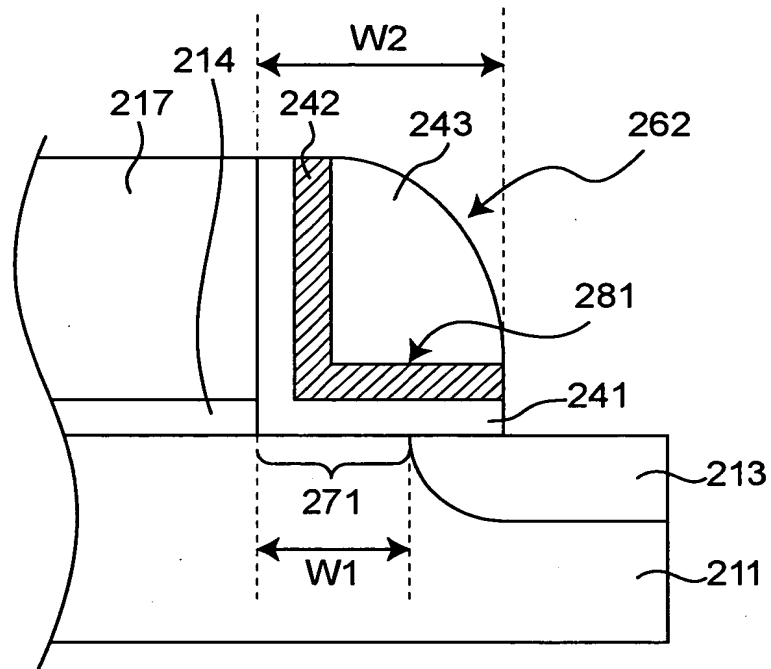


Fig. 10

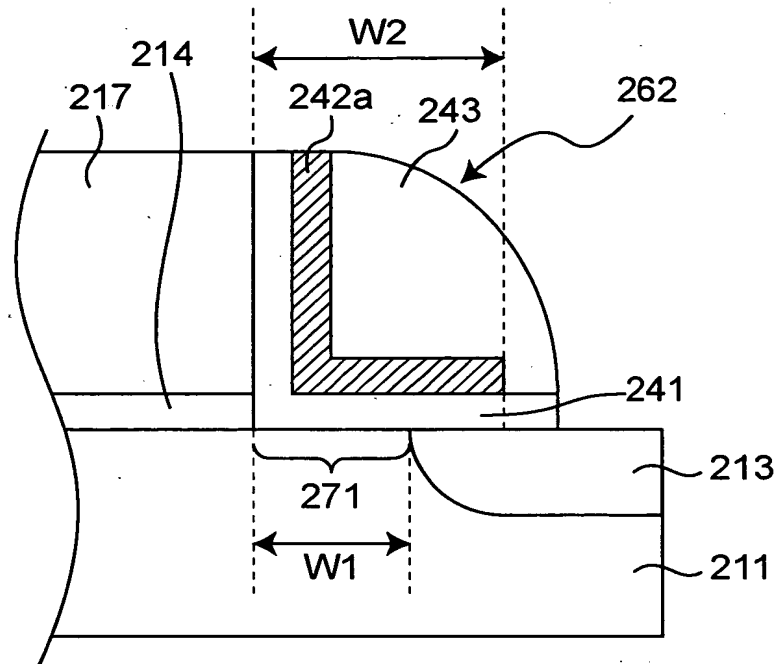


Fig. 11

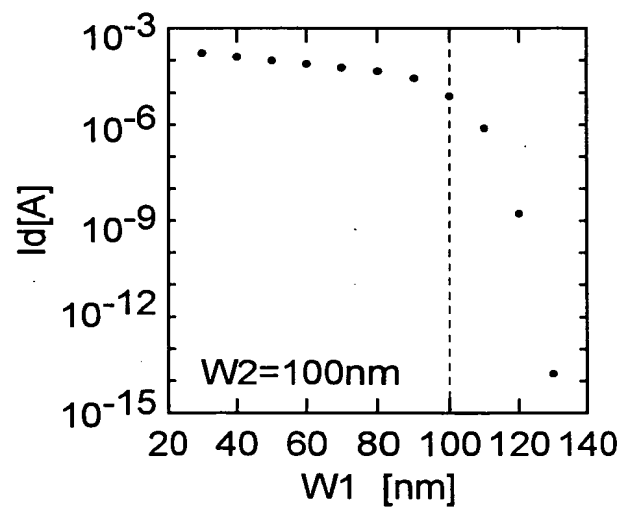


Fig. 12

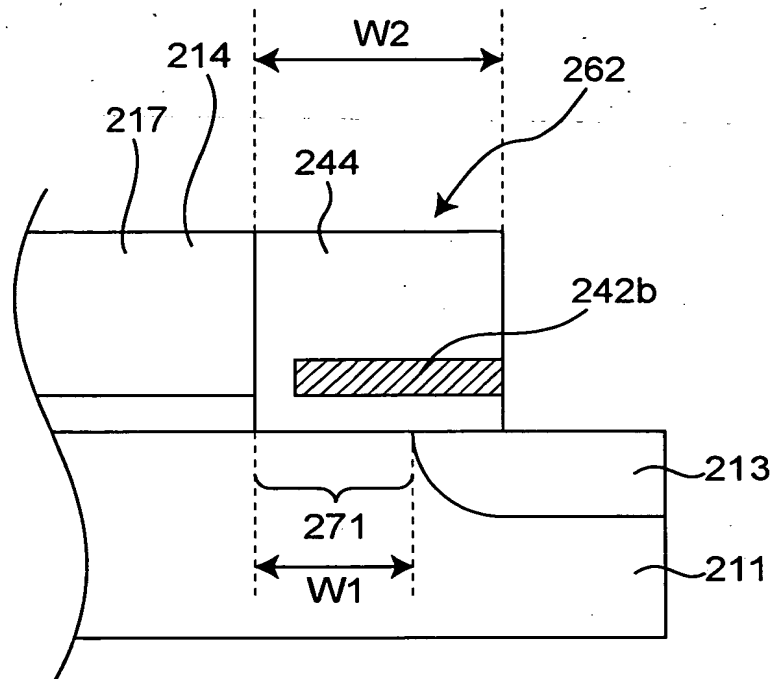


Fig. 13

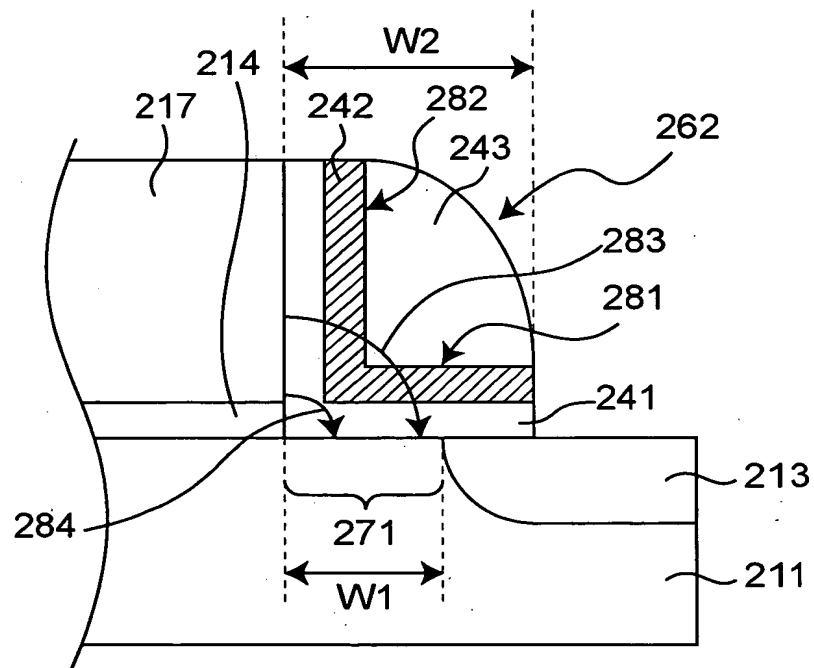


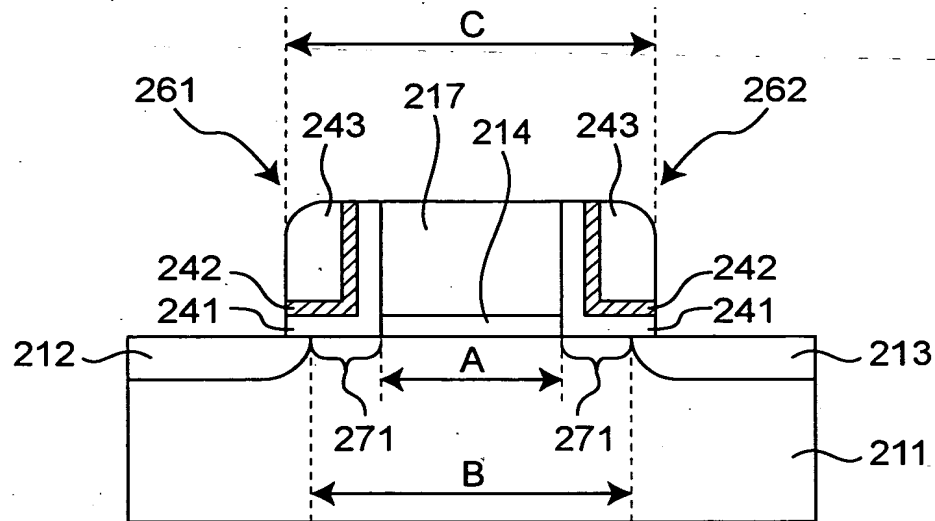
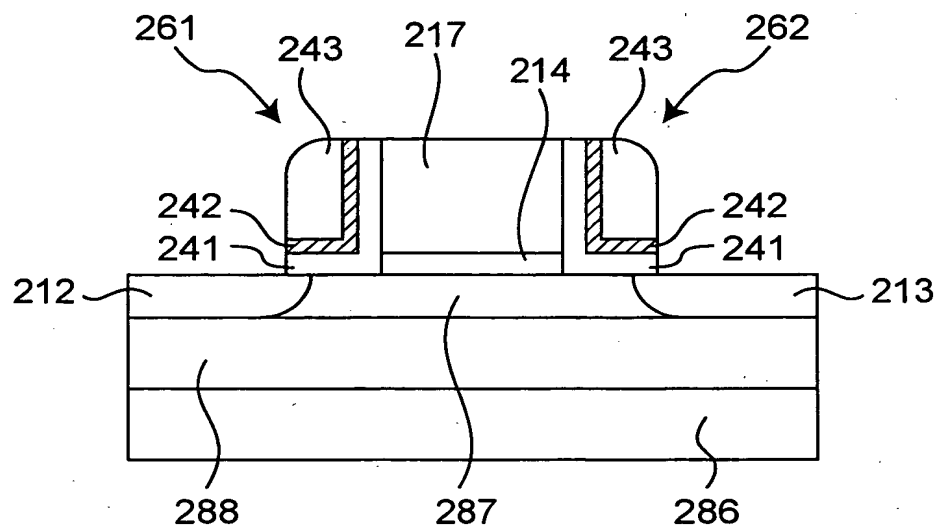
Fig. 14*Fig. 15*

Fig. 18

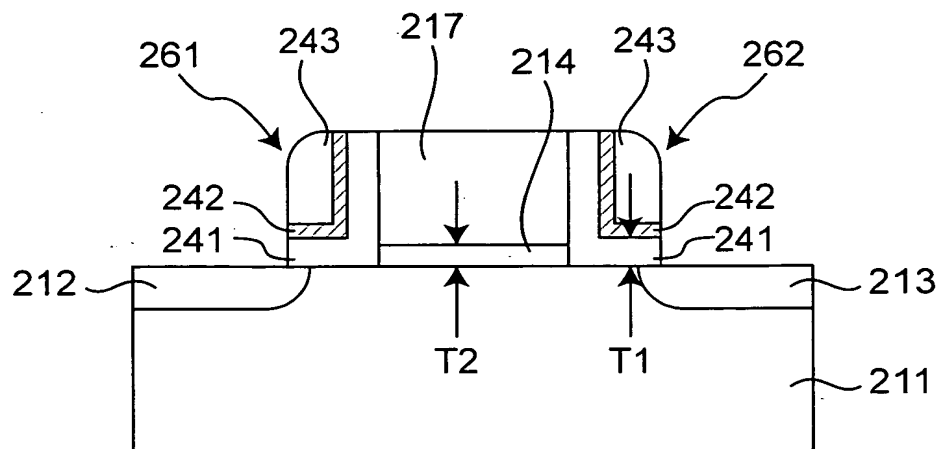


Fig. 19

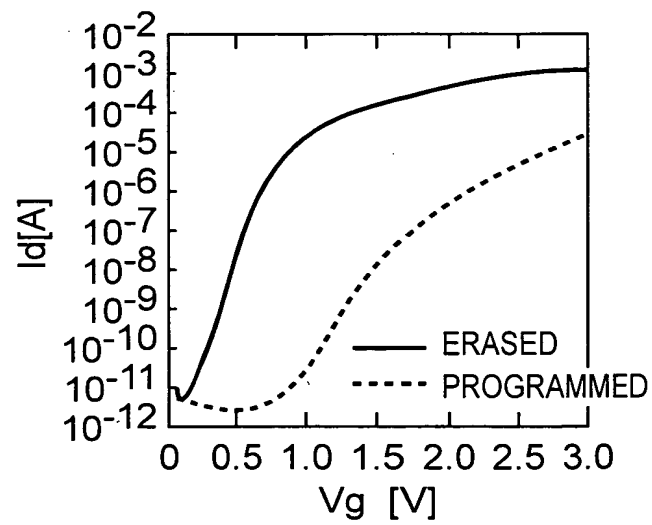


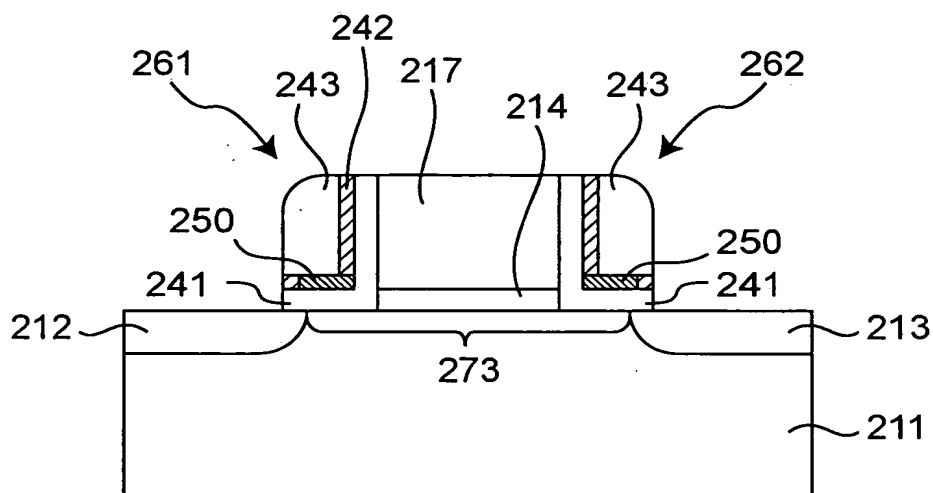
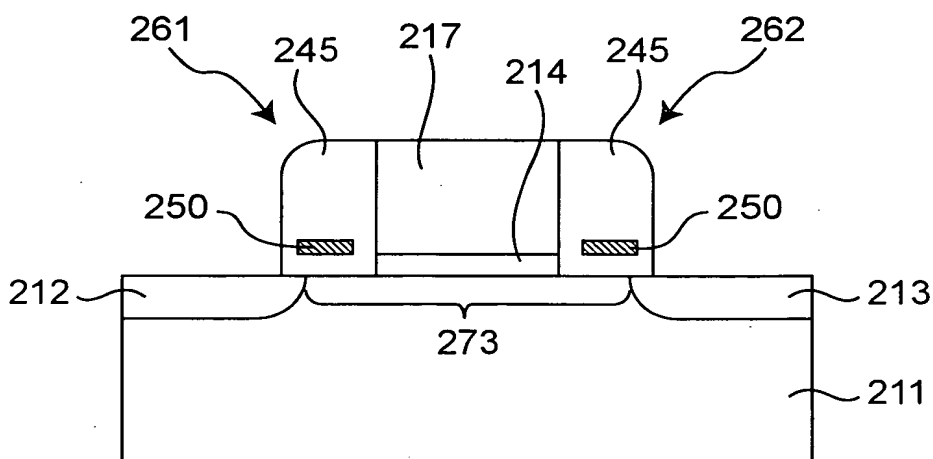
Fig. 20*Fig. 21*

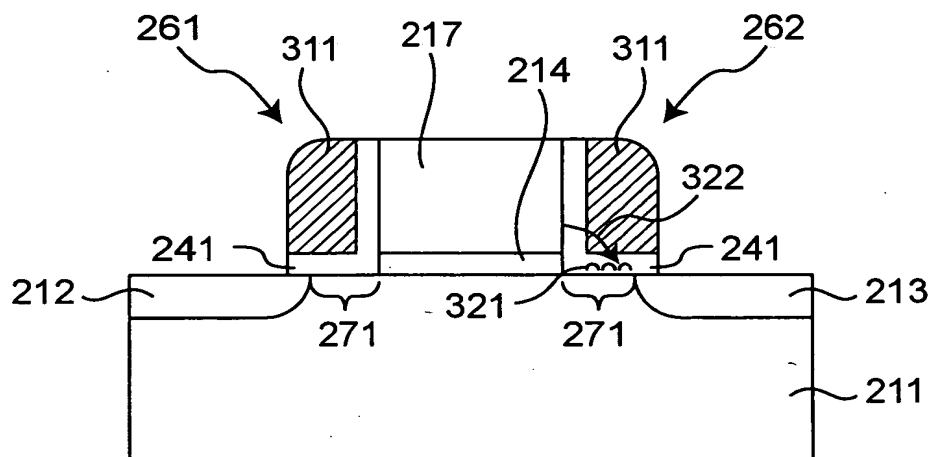
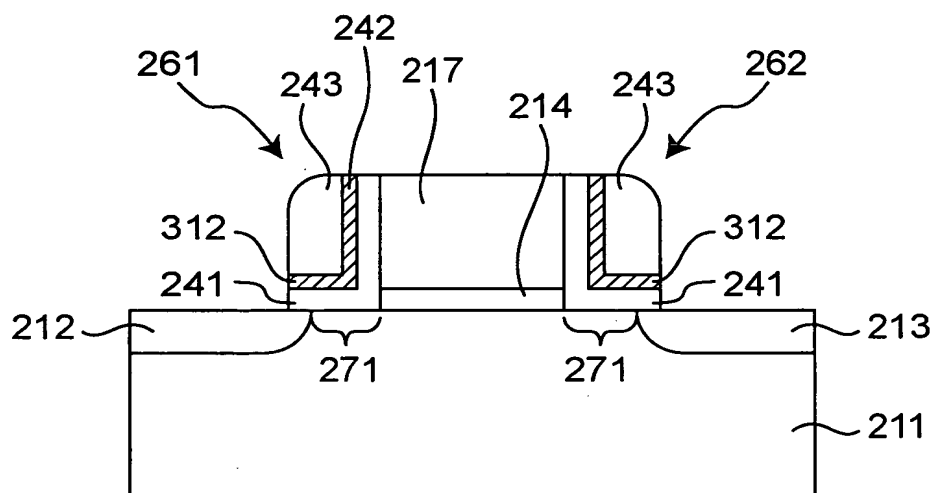
Fig. 22*Fig. 23*

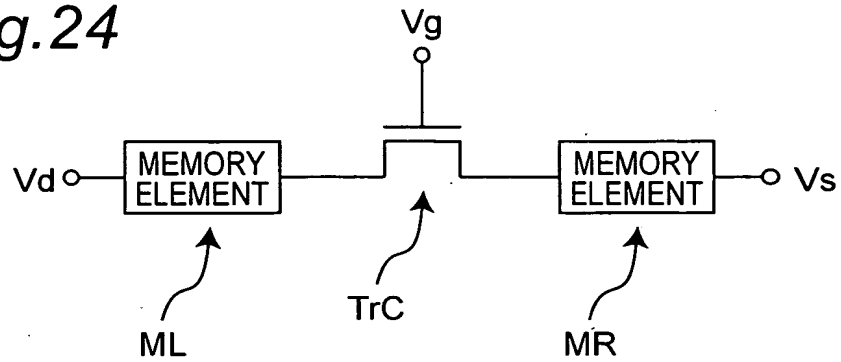
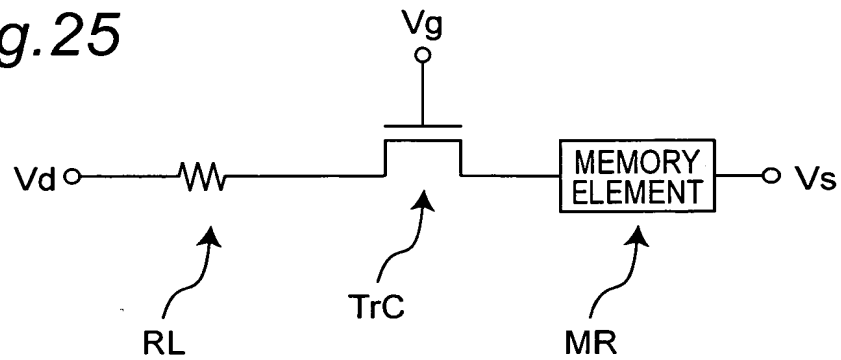
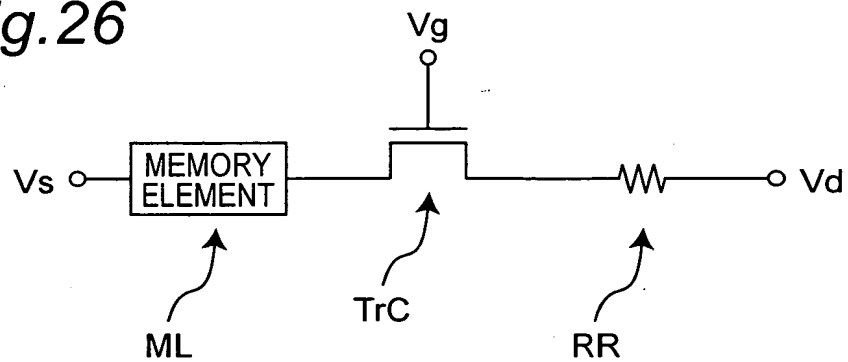
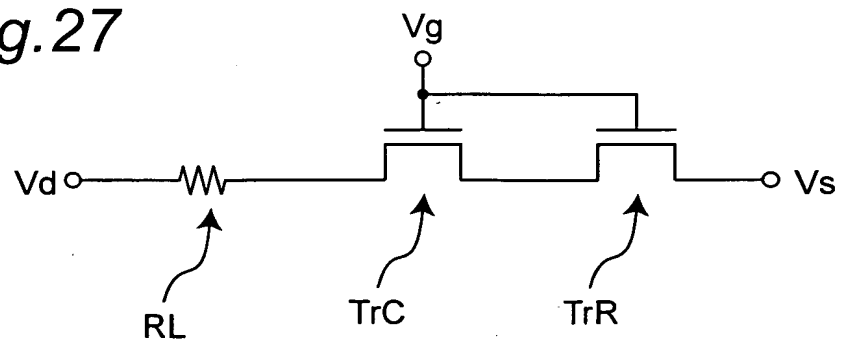
Fig.24*Fig.25**Fig.26**Fig.27*

Fig.28

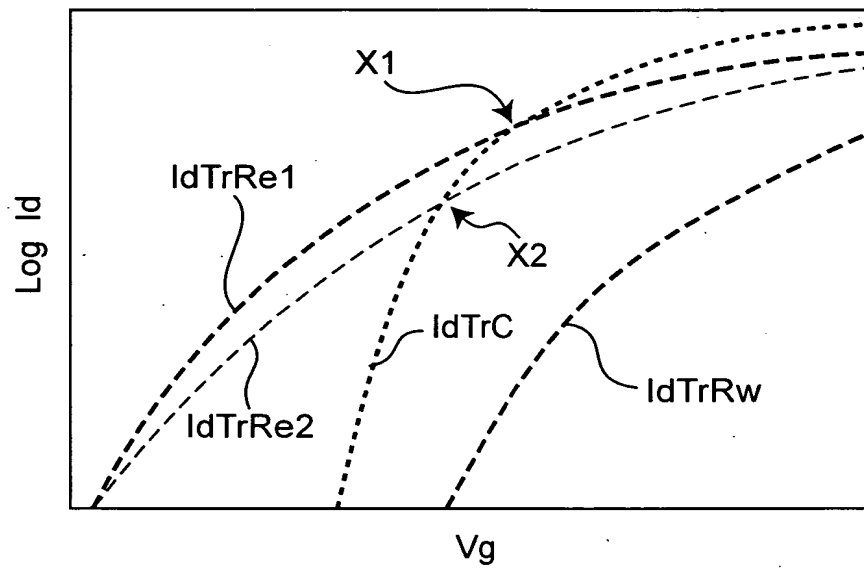


Fig.29

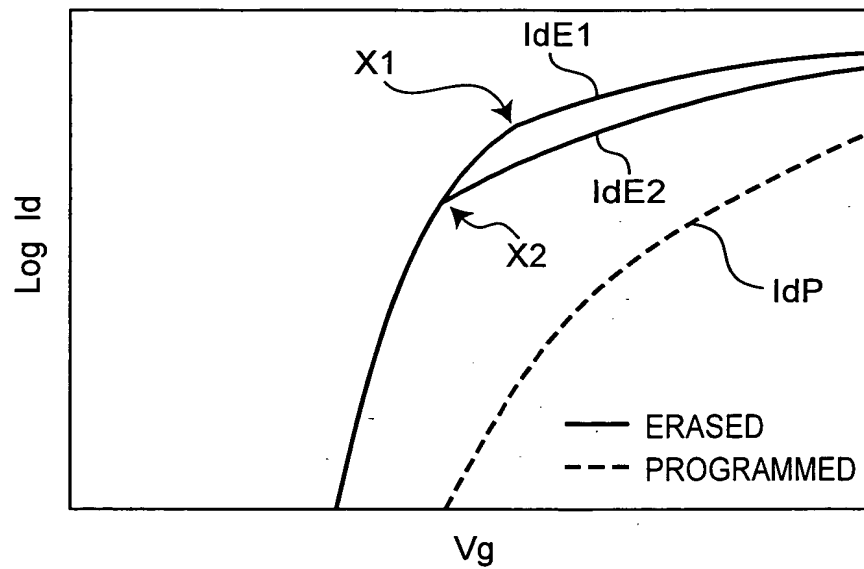


Fig. 30

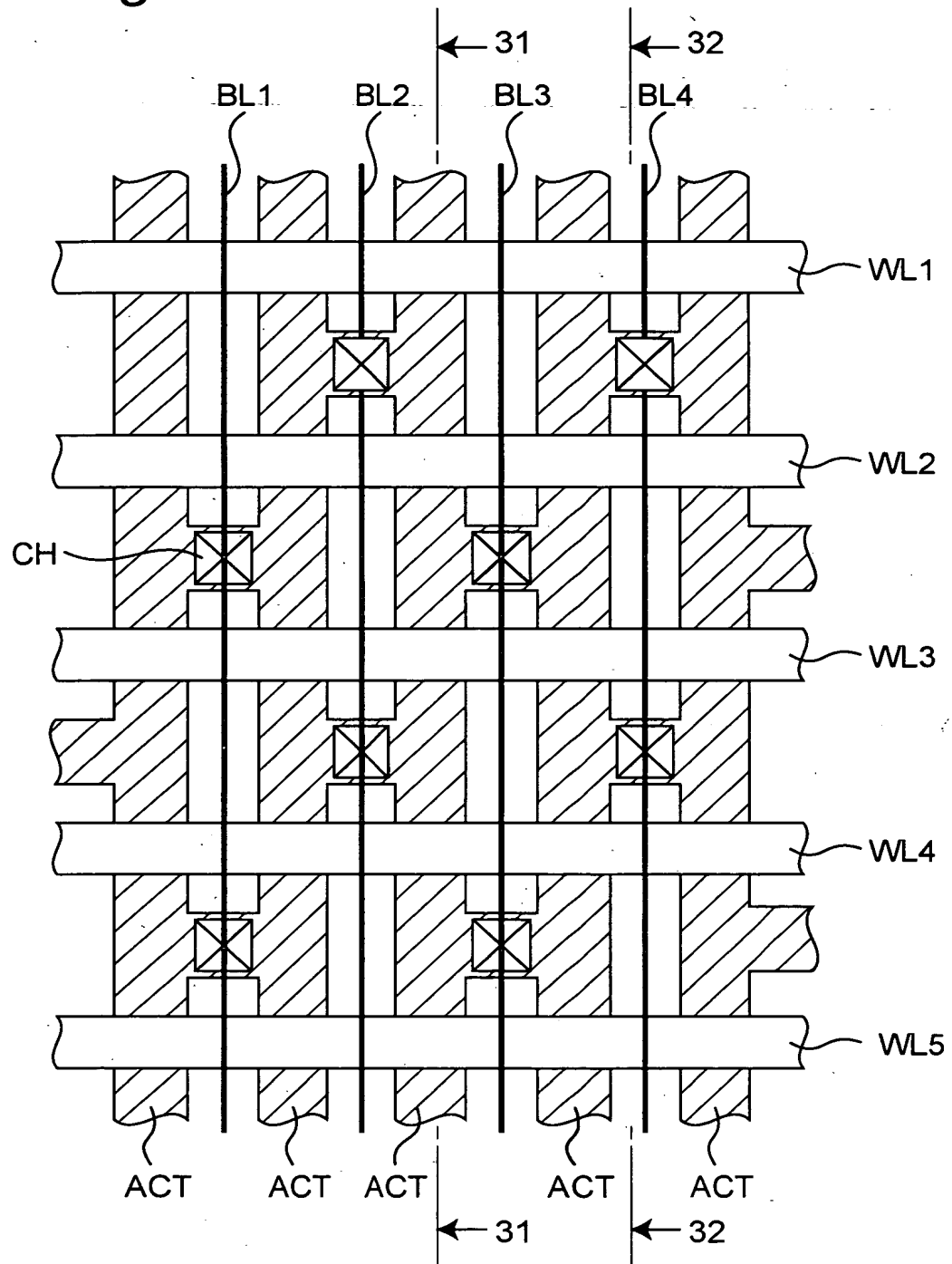


Fig.31

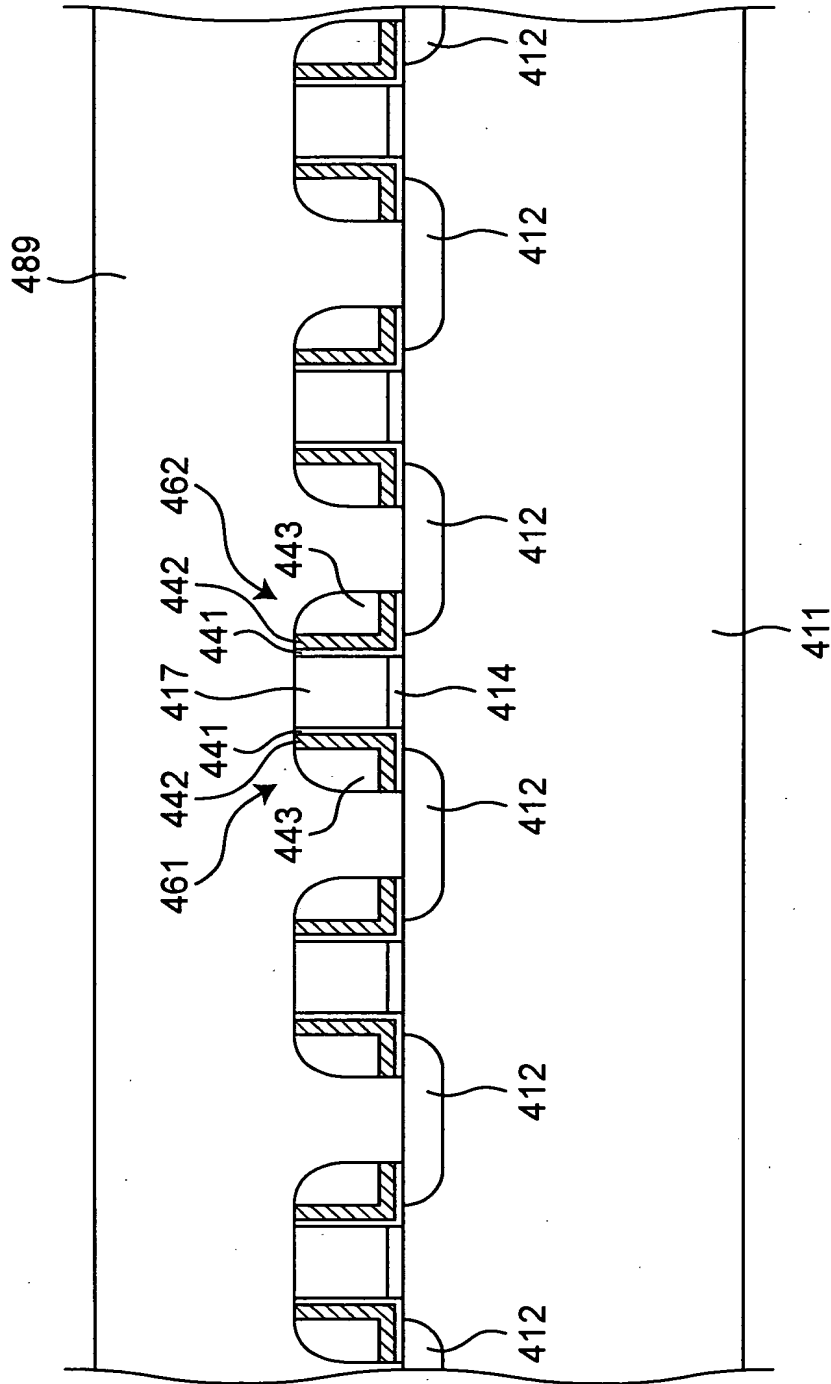


Fig. 32

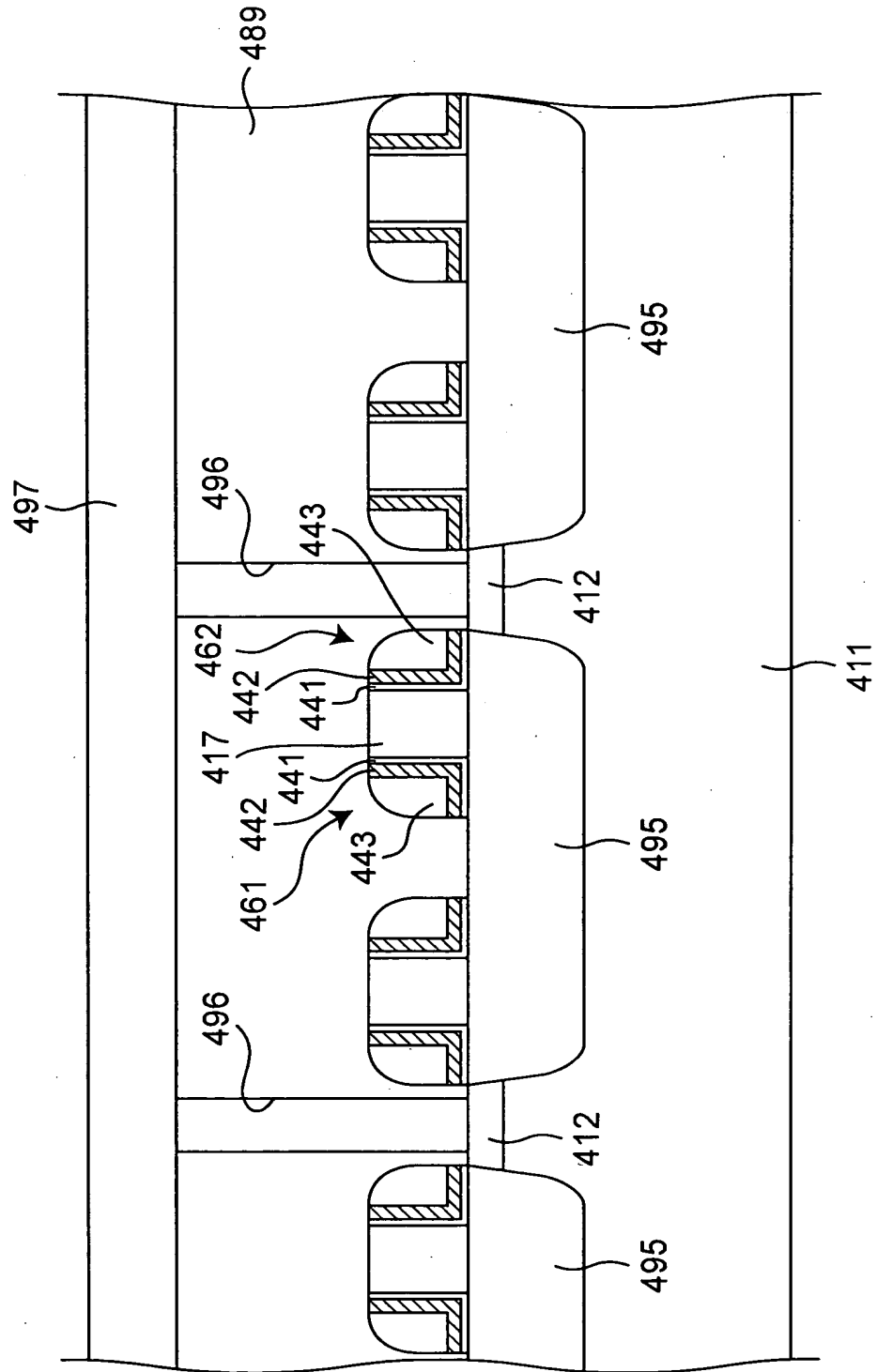


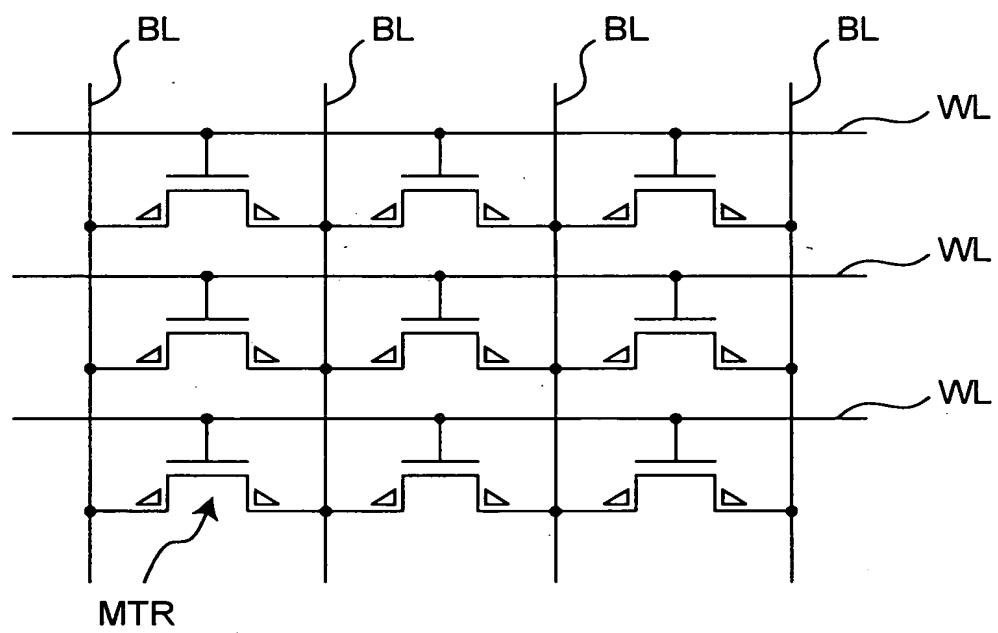
Fig.33

Fig. 34

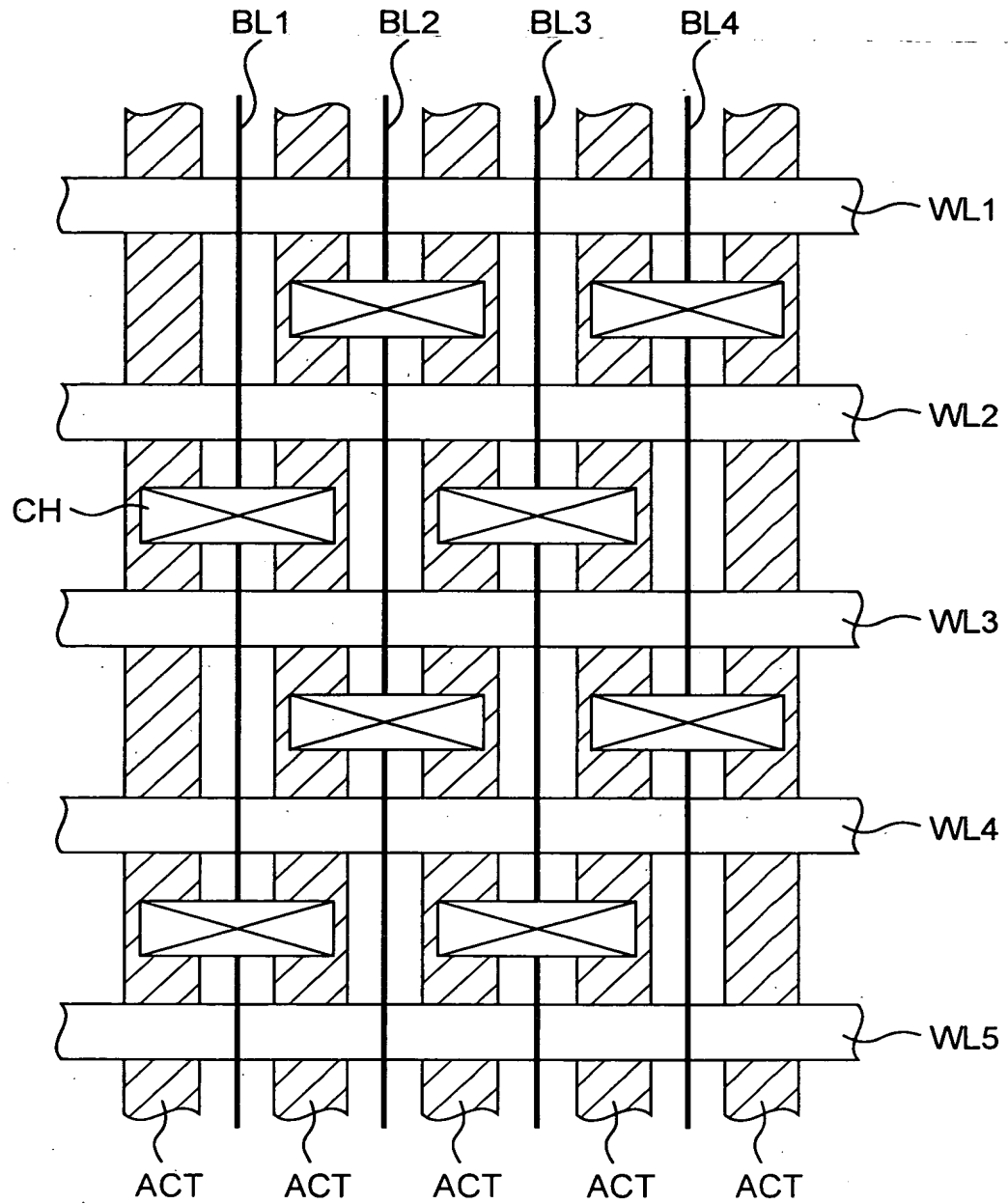


Fig. 35

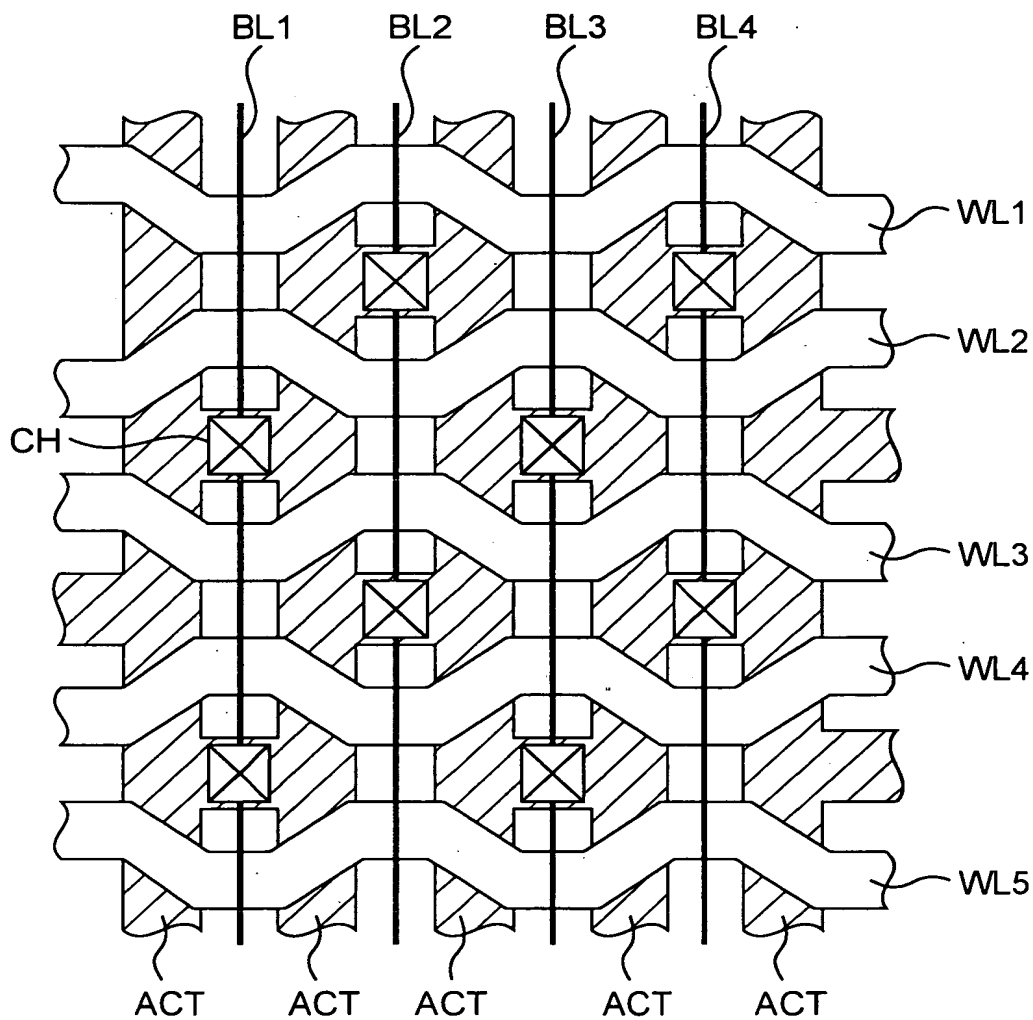


Fig. 37

Year	2003	2005	2007	2010	2013
MPU 1/2 Pitch [nm]	107	80	65	50	35
L (Flash NOR) [nm]	220	200	190	170	140
L (Logic) [nm]	45	32	25	18	13
L (Memory) [nm]	45	32	25	18	13
Wsw[nm]	66	47	40	32	27
Wex [nm]	—	—	3	6	8
Woff [nm]	20	14	14	14	14
Ssw[nm]	144	114	90	68	38

Fig. 38

Year	2003	2005	2007	2010	2013
MPU 1/2 Pitch [nm]	107	80	65	50	35
L (Flash NOR) [nm]	220	200	190	170	140
L (Logic) [nm]	45	32	25	18	13
L (Memory) [nm]	107	80	65	50	35
Wsw[nm]	66	47	40	32	27
Wex [nm]	—	—	3	6	8
Woff [nm]	20	14	14	14	14
Ssw[nm]	82	66	50	36	16

Fig. 39

Year	2003	2005	2007	2010	2013
MPU 1/2 Pitch [nm]	107	80	65	50	35
L (Flash NOR) [nm]	220	200	190	170	140
L (Logic) [nm]	45	32	25	18	13
L (Memory) [nm]	82	66	50	36	16
Wsw[nm]	66	47	40	32	27
Wex [nm]	—	—	3	6	8
Woff [nm]	20	14	14	14	14
Ssw[nm]	107	80	65	50	35

Fig. 40

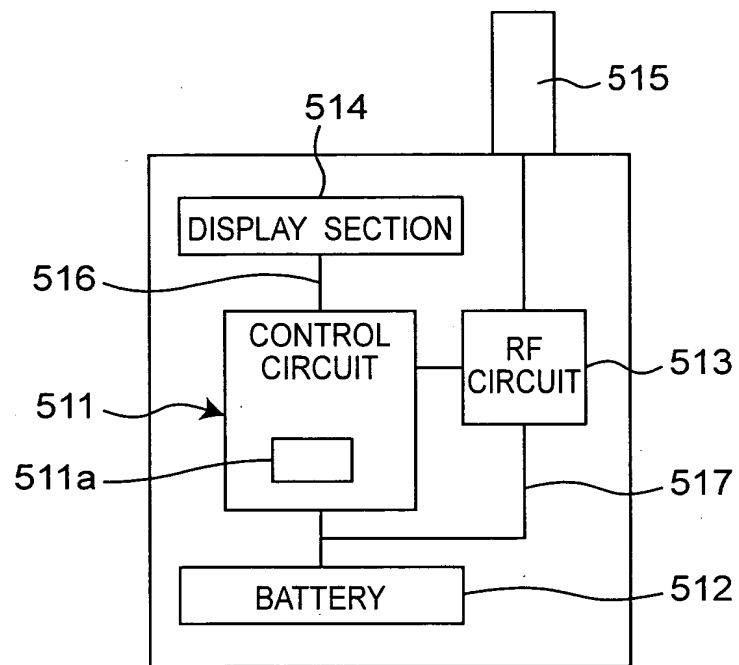
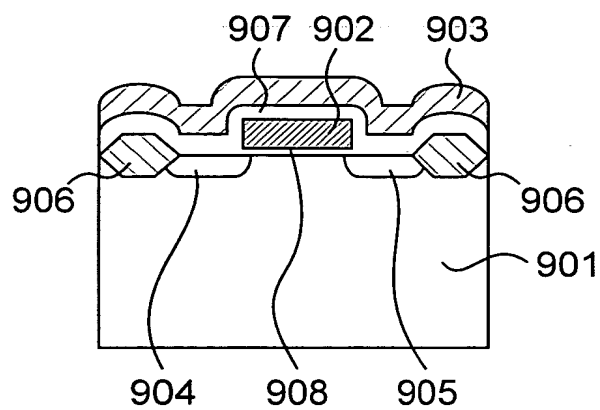


Fig.41*Fig.42*